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W.C.C.

COOPER ORNITHOLOGICAL CLUB

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THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



Volume XVIII

November-December, 1916

Number 6

SOME RESULTS OF A WINTER'S OBSERVATIONS IN ARIZONA

By A. BRAZIER HOWELL

THE SECTION of country contiguous to old Fort Lowell, a few miles east of Tucson, Arizona, is one of peculiar interest to ornithologists, for here much pioneer work was accomplished by certain of the "old guard," such as Major Bendire, and, at a later date, by several of our contemporaries. But little has been done in this region during the winter months, however, and partly for this reason I spent the time from December 7, 1915, until March 25, following, some twelve miles east of Tucson, encamped at an altitude of 2500 feet on Rillito Creek, which flows (occasionally) down an arid valley in a pocket between the Rincon and Santa Catalina mountains. In view of the previous extensive collecting carried on hereabout it is hardly worth while to give an annotated list of the birds encountered by myself, but a few notes concerning certain species may prove of interest.

Due to the situation of our camp, and to the fact that I was unable to absent myself over night, my work was confined to the Lower Sonoran zone. In spite of the fact that I walked as far as seven miles up the canyons from their mouths, at no time was I above the sahuaro association. The height of this zone here, at least 3700 feet, on the sides of the canyons, and higher on the ridges, is caused both by the southern exposure and by the high base level. It was only at the highest point reached that I caught glimpses of such birds as jays and spotted towhees.

Several forms which are not at all uncommon about Tucson seemed to be entirely lacking from our vicinity, notwithstanding the fact that the former place can be only a few feet, possibly seventy-five, lower than the latter, and very similar in character. Yellow-headed Blackbirds (*Xanthocephalus xanthocephalus*) were seen about town, but not where we were. Similarly with White-necked Ravens (*Corvus cryptoleucus*), although I did note several large flocks wheeling in seemingly aimless circles far above camp, for hours at a time, which evolutions I judged to be some form of early courtship. In the nearby mesquite

I saw not a single Abert Towhee (*Pipilo aberti*) nor Crissal Thrasher (*Toxostoma crissale*), although these two were among the commonest species near Tucson. Horned larks can be present during the winter months in only very small numbers, for I saw none, although there are good feeding grounds for them. In some ways the winter was a little disappointing to me, for, with the exception of a few common, local species, the bird population consisted almost entirely of forms that also occur plentifully in southern California during this season. No doubt, the seeming paucity of species was in large part due to the fact that I was able to collect only in the cottonwood, mesquite, and mesa-desert associations.

The nature of the country precluded the possibility of my encountering many water birds; an occasional Farallon Cormorant (*Phalacrocorax a. albociliatus*) in one of the small ponds, a few jack snipe (*Gallinago delicata*), and one or two wandering ducks during the rains, being all one could really expect. I was told that the Scaled Quail (*Callipepla s. squamata*) does occur sparingly in this region, but the only species which I saw was the Gambel Quail (*Lophortyx gambeli*). During the winter, all the quail for miles around seem to congregate on one little range of low hills two or three miles long. Here were two very large covies continually persecuted by gunners, cats, coyotes and horned owls. One of the latter came around when a covey was disturbed one afternoon, apparently seeking a light snack during the excitement. About the middle of February the quail begin invading the bottoms, in pairs and small parties. Later in the season they do considerable damage to grain, small, isolated fields of milo and kaffir sometimes being completely destroyed by them.

Of the four doves of the region, only the Western Mourning (*Zenaidura m. marginella*) and Inca (*Scardafella inca*) are resident in any numbers. Only a very few individuals of the hordes of breeding White-wings (*Melopelia asiatica*) remain for the cold weather, and but a single flock of Mexican Ground Doves (*Chaeomelia p. pallescens*) was encountered. As is well known, the Incas prefer the vicinity of towns, but a flock is sometimes encountered on a ranch feeding with the English Sparrows (*Passer domesticus*). The latter, by the way, are much more widely distributed throughout the settled rural districts than they are in southern California.

During my stay the Sharp-shin (*Accipiter velox*), Cooper (*Accipiter cooperi*), Western Redtail (*Buteo b. calurus*), and Desert Sparrow (*Falco s. phalaena*) hawks were the only common, diurnal raptiores. Fifteen miles south of Florence, a pair of adult Harris Hawks (*Parabuteo u. harrisi*) was encountered among the sahuaros, but I saw no other dark-colored hawks on the trip. No Mexican Goshawks (*Asturina plagiata*) were noted near camp, but in the forest of giant mesquites twelve miles southwest of Tucson, F. C. Willard and I saw two or three, March 20. To one who is accustomed only to handling dried skins of this species, the bird on the wing is surprisingly large. Turkey Vultures (*Cathartes a. septentrionalis*) arrived from the south March 12. The Audubon Caracara (*Polyborus cheriway*) has not been reported from the state since 1905, and it was with much satisfaction that I secured a fine male of this species, January 6. I wounded another near the same spot, January 31, but it escaped by running through the brush, a statement that will sound absurd to those who have not had the experience of chasing a caracara for a quarter of a mile.

Western Horned Owls (*Bubo v. pallescens*) are more abundant here than I have ever seen them elsewhere. I am sure that the residents of the region must be augmented during the cold weather by numbers which have come down from

the mountains. L. S. Wylie, on the boundary of whose chicken ranch we camped, and to whom I am greatly indebted for innumerable kindnesses, is much bothered by these owls. He states that one will alight on a branch where a chick-en is roosting. The latter will awaken and shriek, but is too scared to move. The owl then sidles along and grabs the fowl by the neck. *Bubo* begins to pair here in January, or possibly earlier, and eggs may be expected during the latter part of February. I shot a male bird from a palo verde on March 10, and then dis-covered the female on a nest nearby. I returned on the 19th and took the female as she left the nest, but was much surprised when a small male flushed not twenty feet away. She evidently did not mourn her first venture very long.

I had always understood that an owl is in the habit of killing its prey by a single bite through the head or neck, and, indeed, I have had indubitable evidence that such is often the case. However, on the first of the year, I flushed an owl from the ground, and discovered that it had abandoned a freshly-killed cotton-tail. I skinned the latter and found no marks on it except a few claw punctures, which, however, did not seem to penetrate deeply, and which were confined to the trunk of the animal.

I took seven specimens of screech owls from the sahuaro holes. Three of these H. S. Swarth pronounces *cineraceus*, and four *gilmani*, so it is apparent that the former sometimes descends from the mountains during the cold weather and invades the haunts of the latter. During storms those holes in the sahuaros which face towards the wind are half filled with water. This remains for a con-siderable time, a state of affairs that aids one in the search for screech owls, for, instead of seeking a dry shelter, the birds prefer to stick to the old home, even though such action necessitates their spending the day in the opening of the hole, in full view of passersby. One Pygmy Owl (*Glaucidium g. ridgwayi*) was taken near a spring in the foothills. My eye was first caught by an Audubon Warbler which was fussing around a larger bird, the owl, as if the latter was one of its own immature offspring. As I approached the Pygmy, it flew to a neighboring cottonwood, still followed by the warbler. Due to one of those blunders which occasionally happens, I snapped my auxiliary at it at forty yards. In its more protracted flight this time, its satellite still held place, only desisting from its solicitous attention when I approached to retrieve the owl.

This locality is a favorite one for collecting eggs of the Elf Owl (*Micropallas whitneyi*), and I learn from those with experience that two or even three sets may be expected from a morning's hard work during the proper time of year. It has been supposed that some individuals, at least, of this species pass the win-ter in their summer home, but I had already suspected, from work done at Pot Holes, California, during the winter of 1913, that such might not be the case. L. M. Huey was with me during a part of my stay at Tucson, and together we spent many hours in examining the sahuaros with the aid of a light ladder. If the Elf Owl had been present, we would hardly have failed to encounter it, but not one was seen or heard.

I had always supposed that the Road-runner (*Geococcyx californianus*) was a harmless bird, with a strong leaning towards the beneficial, but now I am not so sure of this fact. While I was out collecting, these abundant birds would often be seen skulking about with eyes open for any opportunity, and it was always necessary, in such case, to make a dash for a specimen after it was shot. On two occasions a Road-runner darted in and grabbed a bird when I had almost reached it, once hopping two feet in the air to nip a sparrow that had lodged in

the branches of a bush. At another time I was watching a small flock of sparrows as they busily fed in the brush, when I noted a Road-runner stealing up like a cat, taking advantage of every bit of cover. When at the proper distance, it rushed out and sprang into the air at the retreating sparrows. Its expression of keen disappointment, and the way in which it glanced around, as if fearing ridicule of a possible observer, was one of the most comical things I have ever seen. With this taste for small feathered folk, the species, in this locality at least, may work havoc among the breeding quail, as well as among the inexperienced fledglings of the smaller brush-nesters.

Mearns Gilded Flickers (*Colaptes c. mearnsi*) were widely scattered during the first part of December, but on the fifteenth, a cold snap brought them into the cottonwoods. Here they remained, with a few of their red cousins, until the first part of March, at which time they began to pair, and were soon standing guard over favorite sahuaros. They are commoner here at this season than I have elsewhere seen flickers, though rather wary. The plumage of those taken even during December, was considerably worn. These birds can carry a great deal of shot, and when finally secured, are often so covered with blood that one hesitates to take more than the very smallest number necessary. No sapsuckers at all were seen.

With the exception of a couple of undetermined hummers seen at long range, no members of this family were encountered until the Broad-bills (*Cynanthus latirostris*) began to arrive. This was on March 13, after which two or three were almost always to be seen in a small, sheltered patch of mesquite near the mouth of one of the canyons. They favor the top twig of a tree, and are rather conspicuous anyway, but quite shy. Their long tails are especially noticeable whether they are at rest or on the wing, and while in flight, give them a decidedly "bottom-heavy" appearance. Other summer visitants to arrive before I left were the Arkansas Kingbird (*Tyrannus verticalis*) March 16, Arizona Hooded Oriole (*Icterus c. nelsoni*) and Lucy Warbler (*Vermivora luciae*) March 17, Arizona Least Vireo (*Vireo b. arizonae*) March 13, and Tree Swallow (*Iridoprocne bicolor*) March 23.

This locality is a little high for Vermilion Flycatchers (*Pyrocephalus r. mexicanus*) during the winter, although at Phoenix, they are rather common during this season. I saw but one near camp until the first week in March, when they began to arrive in some numbers, and soon became abundant. Two specimens of what H. S. Swarth pronounces to be typical *Empidonax griseus* were preserved, taken December 30 and February 22, and several more were noted. Meadowlarks were very abundant, all taken proving to be *Sturnella neglecta*.

One small flock of Pale Goldfinches (*Astragalinus t. pallidus*) was noted during February. The Green-backs (*Astragalinus p. hesperophilus*) were rather uncommon also. I watched a pair engaged in nest-building March 17. Near Tucson, Savannah Sparrows were common in the weed fields, but near camp there were very few suitable places for them. The only one collected proved to be *Passerculus s. nevadensis*. Two birds that were present in some numbers were Brewer and Lincoln sparrows (*Spizella breweri* and *Melospiza l. lincolni*). During the first of March they became very common; in fact almost every little clump of weeds seemed to shelter an individual of the latter species. The only junco encountered was *Junco connectens*, which was not particularly common, a fair-sized flock being met once in a week or ten days. No Sage Sparrows were seen, and I am sorry to say, no Rufous-wings (*Aimophila carpalis*). I read

everything I could find concerning this last species before I left home, and made an especial search for it in its favorite haunts. In habits it is supposed to be very similar to the Western Chipping Sparrow, the two species often occurring in the same flock, and it is supposed to be resident wherever found. However, it was in vain that I searched for hours over the identical hills where many nests are said to have been taken in former years. Collectors who have done recent work in this locality, have either never met with the Rufous-winged Sparrow, or have seen only an occasional individual. It seems that the species must have become exceedingly rare here during the past few years, or that those who reported it as common were laboring under a wrong impression.

A large and interesting series of song sparrows was obtained, *montana* outnumbering *fallax* about two to one. On December 22 I flushed four sparrows from some weeds, while hunting for song sparrows, and instantly realized, as they flew to a tree, that they were something good. As they were wild, I could secure but one, which proved to be a Swamp Sparrow (*Melospiza georgiana*). As far as I can learn, this is the first record for the species west of Texas. Swarth (Pac. Coast Avif. no. 10, 1914, p. 60) speaks of the Arizona Cardinal (*Cardinalis c. superbus*) as "probably" resident, and such must surely be the case, for I found it quite common in suitable places, though shy. During the winter it is seldom found on the floor of the valley, but prefers the mouths of the canyons and the widely-scattered ranches below the foothills, where it may be found in pairs or small parties, sometimes in company with Pyrrhuloxias. During March the Cardinals begin to invade the lowlands, and then occur about the ranch corrals. F. C. Willard informs me, however, that they return to the foothills to breed. That most interesting bird, the Arizona Pyrrhuloxia (*Pyrrhuloxia s. sinuata*) was met in larger numbers than the last, small bands being often encountered both in the bottoms and at the foothill ranches. Sometimes they were quite tame, and at others, exceedingly shy.

On February 9, I was very much surprised to see a Painted Redstart (*Setophaga picta*) at an altitude of 3700 feet in the Catalinas. There is no possibility of mistake, as I am familiar with the bird in life, and it permitted an approach sufficiently close for me to shoot it with the auxiliary. Unfortunately, however, the bird rolled down a high bank and into a swift stream, by which it was carried away before I could get to it. Undoubtedly, this species does not winter on its nesting grounds, even in small numbers, but it is worth noting that it is more hardy than most of the other warblers which we are accustomed to associate almost exclusively with Arizona, as it remains in the mountains in considerable numbers throughout September, when all but a very attenuated rear guard of the others have left for the south.

I feel sure that the prevailing impression is erroneous which regards the Bendire Thrasher (*Toxostoma bendirei*) as a permanent resident of this locality. The section between Tucson and Fort Lowell is a favorite place to collect eggs of the species, but, although I kept careful watch, I saw only one bird (February 1) until March 17, when I secured another, and after which I saw two or three more. F. C. Willard offers evidence corroborative of this view, as he tells me that the species occurs at Tombstone, the elevation of which is about twice that of Tucson, only during the winter. Palmer Thrashers (*Toxostoma c. palmeri*) are most abundant, and breed very early indeed, several nests of young being found the latter part of February. I was considerably surprised at the actions of the hordes of Cactus Wrens (*Heleodrytes b. couesi*) during the cold weather. In-

stead of comporting themselves in the usual way, they gathered in flocks of from half a dozen to thirty or more individuals, and took to the high cottonwoods, going over the whole top of a tree after the methodical manner of a flock of nut-hatches or bush-tits, even hanging from the branches upside down when need be.

Although not encountered in any numbers, enough Bridled Tits (*Baeolophus wollweberi*) were seen in the valley bottom to point to the probability that the species occurs regularly in such situations. As there seem to be but few state records for the Gadwall (*Chaulelasmus streperus*), I record a female shot a few miles east of Phoenix, March 27, when there seemed to be more of the same species present among the large flocks of teal and Shovelers.

Ornithologically as well as otherwise, Arizona is a wonderful state, and a great deal remains to be done among the birds within its boundaries. It is almost a pity that its southern border offers so many inducements to the collector during the spring and summer, the consequence being that other parts of the state, and the south as well during the winter, have rather suffered for lack of systematic field work.

Covina, California, August 28, 1916.

MEETING SPRING HALF WAY

By FLORENCE MERRIAM BAILEY

III. (*Concluded from page 190*)

AS WE approached Mexico, not only were hackells more frequently seen, but yuccas became more common, sturdy little drum majors, four to twelve feet high, offering good nesting sites to Orioles and Thrashers. Cactus also increased in amount and variety. The beautiful magenta clusters of the ribbed *Cereus* and a small devil's head, with hooked spines, were among them. The thickets were becoming more dense, a veritable jungle of mesquite, huisache, butterfly tree, cactus, and yucca, suggesting the eleven foot rattlers that had been reported with such an air of verity. When Mr. Bailey was tempted in by some rare specimen, the old Texan cried excitedly, "You better come out of that thicket there's buggers there I tell you!" But a long black snake dispatched by the roadside was the worst 'bugger' encountered. Near a pond a plant resembling sunflower was found together with masses of a white nicotine that fairly smelled of tobacco.

Some of the migrants met with were near their southern breeding limits but the Veery seemed decidedly out of place beside Golden-fronted Woodpeckers and the two Doves, the Ground and the White-winged. In the mesquite thickets two of the common notes heard were those of the Golden-fronted Woodpecker and the Wood Pewee. The soft lulling notes of the Wood Pewee to us northerners brought up pictures of cool, high, heavily-roofed northern woods that contrasted strangely enough with these low, hot, thin-leaved mesquite, cactus, and thorn thickets, drolly spoken of as timber; but though the Pewee, which winters from Nicaragua to Colombia and Peru, breeds as far north as southern Canada, some of its numbers do breed as far south as southern Texas.

At our first lunch camp beyond Sauz Ranch a thunderstorm overtook us just as the Texan had lit the fire. He had gathered his firewood painfully, complaining, "There's plenty of that little bresh, but its mighty thorny I can tell you!" and loath to have to gather a second batch, when the rain began, slipped the bake oven over his fire. Fifteen or twenty minutes later when about two inches of rain had fallen and his fire was out, the old man, standing in the water remarked, facetiously, "A little more and this would have been a right smart rain".

While waiting for the roads to dry off a little we walked around among the bushes where the Thrashers and other birds were singing and the White-winged Dove was hooting like an Owl. In the cactus we found nests of Curve-billed Thrasher and Cactus Wren, while the Bullock Oriole, Chat, Yellow Warbler, Summer Tanager, Bewick Wren, Roadrunner, Shrike, and the small Texas Woodpecker added interest to the hour.

In going on we realized that we were nearing Mexico, for at a roadside store, where strings of garlic hung on the wall, we got two dollars of Mexican money for one of United States coin.

Thirty-five miles from the Mexican line we forded Rio Coloral, formerly one of the mouths of the Rio Grande. Here we found Spotted Sandpipers, a flock of White-winged Doves, a Fish Hawk catching fish, and a Mockingbird with a nest in a blooming tuni cactus. In this, the land of the Mockingbird, one of the birds would often start a moonlight chorus, birds of other kinds joining in as they awoke, the Cassin Sparrow being among the nocturnal choristers. These nocturnal concerts which have been described by other field workers, were among the most delightful features of our life in the open. In the thickets beyond Rio Coloral we found the Sennett Oriole and the handsome Green Jay, a Mexican bird just ranging up into southern Texas. Fresh deer tracks were also seen.

Twenty-three miles from Mexico we camped for a night near a Mexican hackett where we got *centimo leche*, saw women carrying big milk cans on their shoulders and Señors in pointed hats and Señoritas in black rebozas. In sight of camp Jack rabbits nibbled grass and ambled about trustingly. A Caracara flew by, at which, to our amusement, a Scissor-tailed Flycatcher dashed after him and pouncing down, rode on his back till they were out of sight. Texas Woodpeckers and Orioles were in evidence, and Cowbirds fed around the mules. But our camp was named Parauque Camp for the Parauque, a new bird to me, a Mexican bull bat that comes up into southern Texas and whose hoarse *pa-räu'-que* called us hurriedly from our camp fire. Out in the mesquites it would fly from one bare spot to another catching insects like a Poor-will.

The next day there was one long stretch of white daisies framed by mesquite, daisies smaller and with finer petals than the eastern flower but effective in the mass when turned toward the sun. In the main it was a day of blooming cactus, splendid masses of it in fuller bloom than we had found it before; a day that gave new meaning to the word cactus to me. Never again would it stand for spine-covered grotesque forms of vegetation. Does the desert bloom like a rose? No, it blooms like a cactus! Nature strews your path with thorns, it is true, but only to ensure the flowers, big generous blooms of gorgeous hues, bright lemon, soft saffron, dull orange, magenta, and glowing crimson. Seven species there were along our way. Lowly ground clusters

made glad the waste places, fairly excited us by their triumphant notes of color; low cactus trees held the eye as landscape centers, and great walls, twice our height, yellow with bloom, fairly radiated sunlight. Cactus Camp we dubbed our night's camp for it was beside an eight to ten acre patch of solid yellow flowered prickly pear.

In one cactus bush, oddly enough, a wood rat was sitting in an old Thrasher's nest that he had fixed over for himself. Another wood rat had decorated its house with one of Mr. Bailey's small traps, a rare specimen for its museum! On one side of camp was a small slough that would have been tempting for a swim had it not been for the alligator slides on its banks. The soft mud of the roads here was marked up with tracks of turtle, deer, and armadillo, and the ground in many places covered with miniature toads.

From the cactus strip we drove down through coast marshes, really river flats extending along both sides of the Rio Grande, where numerous small Ammodramuses kept flying up from the marsh grass, buzzing low over the tufts to drop down again out of sight.

After our long journey through country whose occasional houses were Mexican hackells, when approaching Brownsville we looked twice at an unfamiliar appearing building and then exclaimed, "Why, that house has boards on it!" so quickly had our eyes accepted Mexican standards. Fresh from the prairie with eyes trained to enjoy soft colors we came to a Mexican house whose dull pink wall harmonized well with its grape vine trellis, and the adjoining pink-walled chapel with its cross standing on the ground beside it. As we drove by a pretty little Señorita ran out and pointing to the road with a volley of Spanish held up three fingers. When we failed to comprehend, she grew embarrassed and ran back to the house full of shy laughter, but a guess that she was sent to collect the toll gate fare finally saved the situation.

As we entered Brownsville, May 1, after a hundred and eighty miles of level prairie, the jocose old Texan called out, "I can't see the town for these yere plegged houses!" Mexican hackells and palmetto roofed sheds and brush corrals were found in the heart of the town, but a public school building with piazzas running around two stories, told of the white population. A boy with a sling shot shooting Eave Swallows from a large colony nesting about a building had a modern air, and girls in shirt waists on bicycles offset Señoritas with blue or black rebozas over their heads. The principal industry of the town was apparently Mexican drawn work, though the manes and tails of the horses had been cut off by the makers of Mexican hair work!

A small pink frame house with pink pillars was pointed out as the birthplace of the Mexican Republic, for here in his early days Porfirio Diaz had lived and planned the Mexican revolution. A larger house next door with white pillars and an air of prosperity was pointed out as the second home of the man with the iron hand.

In Brownsville, be it noted, no English Sparrows were seen. A number of native birds were found, among them the Buzzard, the Mexican Crested Flycatcher, Jackdaws, Martins, Barn and Eave Swallows, Mockingbirds and Titmice.

From Brownsville we ferried across the Rio Grande to Matamoras, the river, which was rising rapidly, swirling around cutting its banks at such a rate that it was plain to see how it had cut its way down from Rio Coloral. On both sides of the river the chief crops were then cotton, corn, and sugar cane, but oranges, lemons, bananas, and guavas were also seen growing. Both

Brownsville and Matamoras were formerly towns of great wealth, Matamoras having been the distributing center during the Mexican war; but externally the flat-roofed, one story adobes with their softly tinted walls and blinds were merely characteristic Mexican dwellings. The iron gratings for doors and windows may have hinted at vaults and safes of days of opulence but they also bespeak the southern climate where doors and windows must needs be open at night. The plaza and market place were characteristic and the picturesque old cathedral whose chimes could not be rung without the payment of a tax had bullet holes left from war times.

With all this foreign setting it was a surprise to find an enthusiastic botanist, a woman connected with the Presbyterian mission, actually teaching botany to the Spanish Señoritas. Would that some one could have taught them the birds!

Leaving Brownsville late in the day we were obliged to camp for the night within too easy reach of the town, for our road was as historic as the towns themselves, and although the tragedies of earlier days were now infrequent, we were warned by an old army officer to camp before dark well away from the road and to have no late camp fires to attract attention. In spite of the keen interest taken in our movements by the Brownsville Mexicans, however, the first night passed without incident; but the second night we camped in the mesquite which offers thin cover and in the middle of the night the camp guardian awoke to find two mounted Mexicans at the foot of his sleeping bag. With the instinct of an old timer who sleeps with his gun in his blankets, he had his finger on the trigger ready to shoot through the blankets when the men looking down on him—asked the road to Brownsville!

Farther on our way from the Mexican boundary we passed a party of sullen, hard faced Mexicans driving a band of suspiciously good looking horses, which reminded us of the locked gates of the cattle ranches. And later when we were crossing King's Ranch we met three horsemen so well mounted and armed that we imagined they might be looking for missing horses. The old Texan, however, said they were Mrs. King's soldiers and that probably "something had happened" down at the other end of the ranch and they were "going to see about it."

In spite of local tragedies we passed safely on our way, our only excitements supplied by the "varmints" of our old camp man. A cup of water poured down what appeared to be a gopher hole in front of the tent one morning brought out a tarantula, an inhabitant of the clay soil where as the Texan complained, "the mud growed to the tent pins". A second spider when trying to evade pursuit ran down a convenient sleeping bag, hence the name Tarantula Camp! Perognathus Camp commemorated a little pocket mouse who, when a floor without holes was being selected for the sleeping bags, popped out of a closed door in the ground and ran into the tent, and who, in searching for his door in the night tramped on our beds and finally got into a trap. There was also one Rattlesnake Camp, though two earned the name, and the shooting of a third rattler coiled in a trail almost led to serious consequences. The shot roused a band of range cattle, the most dangerous animals one encounters in the west, and with their keen hunting instinct they took after the hunter, who only escaped them by dodging into the chaparral as they came charging furiously along, heads and tails up. A Texas long horn at one ranch that we passed had a spread of horn measuring about five feet, for the old

Spanish stock which has nearly run out has gone to horns, in southern Texas. A ground squirrel was seen on our way north, and in one place a red coyote ran across the road ahead of us turning to look back over his shoulder.

On the way north, among the choice southern birds seen were Black-crested Titmice, the exquisitely tinted pink and gray Pyrrhuloxia, a pair of tiny Verdins about one of their big globular nests, Red-eyed Cowbirds sitting on the roadside fences, a White-tailed Kite on a bush in a salt flat, and a small flock of the Black-bellied Tree Ducks standing high on their long legs on small tufts in a pond surrounded by pink water lilies; while on a cool looking pond over whose shimmering water dragon flies were wavering, the diminutive bluish gray Mexican Grebe, found only between southern Texas and Panama was seen swimming about, appropriately enough, among blue and white water lilies.

A number of nests were found in passing. On May 4, eggs were seen in a White-winged Dove's nest, and young in a Jackdaw's nest; on May 5 a Sennett Oriole's nest with four eggs was found in a yucca, a remarkable basket shaped nest hung by a handle from the bayonets of the yucca. The same day a Mockingbird's nest with four eggs was found in a blooming cactus, a Cara-cara's nest was discovered in the top of a small round oak with fuzzy-headed nestlings, and in a huisache a family of half grown Cardinals were being fed; and on May 6, a Desert Sparrow's nest was found in a low bush with large feathered young.

While the bulk of migration had passed, on May 6, two Whooping Cranes were seen going through their maneuvers in the sky; on May 8 a Wilson Phalarope, a beauty in full breeding plumage, was watched swimming about on a flood water pond; on May 9, a flock of two or three hundred Dickcissels was seen on the fences; on May 10 a large flock of Mourning Doves were passed on a fence; a Black Tern was seen over a lake, and several species of Sandpipers on a narrow strip of pond; besides a few other northerners seen on different days, among them a few Ducks, Thrushes, and Warblers, notably the Black-throated Green, the Blackburnian, and Redstart on May 11, at Petranilla Creek.

The prairie flowers as we went north also underwent a remarkable change. Although we made the whole trip of about three hundred and sixty miles from Corpus Christi to Brownsville and return in seventeen days, not only had the great waves of migration passed north but in places the prairie carpet had changed completely during the interval. An entire set of social plants had gone out of bloom and been replaced by others. In one section we were nearly a day with a newly laid carpet of yellow tar weed that gave a softly tinted picture, the yellow green floor having a wall of dull green mesquite and a roof of soft blue sky. Between Petranilla Creek and Corpus Christi where, on April 24, the ground had been pink with evening primroses, on May 11 it was covered with white mint as far as the eye could see in all directions. The change was so complete that it was positively startling.

But one gets to expect big things of the prairie—waves of flowers, passing throngs of birds, overhead the starry host of heaven, and round about the encompassing clouds. One moonlight night we camped among huisache trees and slept on a bed of daisies, and after the moon set the sky grew fuller and fuller of stars till one could but marvel at their myriad host. Silent night! What infinite peace Nature offers her children! On one of our days when there

was open prairie from horizon to horizon and the blooming white floor and the uplifted song of the Meadowlark had put us in tune, we had a characteristic prairie cloud effect. We were encircled at first by low white cloud flecks in the blue and then as they grew and grew, by encompassing white clouds that seemed to travel with us, till, after crossing a gulch we came up on the other side, seemingly right up into the clouds when, as forest trees rise in a fog, the white host loomed up, white challenging spirits before our path.

Washington, D. C., April 6, 1916.

NESTING OF THE LECONTE THRASHER

By J. R. PEMBERTON

WITH TWO PHOTOS BY THE AUTHOR

IN THE CONDOR (Vol. vi, 1904, pp. 95-98) M. French Gilman has given us a rarely good and complete account of the nesting habits of the Leconte Thrasher (*Toxostoma lecontei*). It was with much pleasure that I was able during the spring of 1916 to observe the many interesting characteristics attrib-



Fig. 53. NEST OF LECONTE THRASHER. HALF OF THE CHOLLA CACTUS HAS BEEN TORN AWAY TO EXPOSE THE STRUCTURE.

uted to this rare bird, and while I have nothing new to record it is hoped that the photographs here presented will help towards an understanding of Mr. Gilman's article. The region in which I found this bird was the same in which Mr. Gilman worked, Cabezon and Whitewater, Riverside County, California. This is in the extreme northwestern end of the Salton Sea desert.

Three nests were examined. The first was found on April 20, 1916, by H.



Fig. 54. NEST AND EGGS OF LECONTE THRASHER. THE FELT-LIKE LINING,
AS HERE SHOWN, APPEARS TO BE CHARACTERISTIC OF NESTS OF THIS
SPECIES.

W. Carriger, with whom I was working at the time. This nest contained three small young and one addled egg, which latter was taken as being the first ever seen by either of us. This nest was located in the center of a cholla cactus and about two and a half feet above the ground. On May 13, 1916, two nests were found. One was located five feet above the ground in a Spanish bayonet or, as sometimes called, yucca. The second was in the center of a cholla cactus bush,

the one photographed (fig. 53), and may be regarded as being typical of those described by Mr. Gilman. Both nests contained three incubated eggs.

The skeleton or framework of the photographed nest is bulky, strong and well anchored amid the many ramifications of the spiny cactus. The lining is made entirely of a fine, gray, woolly plant which grows in abundance in the locality and is pulled up entire by the bird. This material is firmly pressed together and forms a remarkably felt-like padding about one-half inch in thickness. The light gray color of this lining contrasts well with the brown framework and the light blue of the eggs. (See fig. 54.)

At Cabezon the Pasadena Thrasher (*Toxostoma redivivum pasadenense*) occurs also. Nests of this bird were found to differ radically from those of the Leconte Thrasher in not having the felt-like lining.

Colton, California, August 24, 1916.

THE SAN DOMINGO GREBE IN BEXAR COUNTY, TEXAS

By ROY W. QUILLIN and RIDLEY HOLLEMAN

ABOUT TEN miles south of San Antonio, there is a large marshy lake which covers something like a thousand or twelve hundred acres. Being the only body of water of this size in this part of Texas, and having exceptional surroundings, it is the mecca of the water birds of this county. Practically the entire lake is surrounded by a barrier of cat-tail reeds, tules and marsh grass, which in some portions is one hundred or more yards in width.

While searching for nests of the American Eared Grebe in a secluded inlet of this lake we located our first nest with eggs of the San Domingo Grebe (*Colymbus dominicus brachypterus*). Both cat-tails and tules were growing at this point, but not so thickly as they are generally found. In one of the small patches of open water, which break the monotony of these reed jungles, the nest was anchored. In general appearance the nests examined by us average somewhat smaller than nests of the American Eared Grebe, this being especially true of the hollow in which the eggs are deposited. The nests were composed of decayed reeds of every description, heaped into a cone-shaped mass measuring from four to six inches in height, and from fourteen to twenty-four inches in diameter at the base, tapering to six or eight inches at the top, and they were liberally plastered with mud, especially the depression which held the eggs. The area of this depression, the depth of which is about one inch, is determined by the number of eggs in the clutch, as they fit snugly into it.

Of five nests located from June 25 to July 9, two contained four eggs and three, three eggs. All these sets were from slight to heavily incubated. The eggs were badly stained, and the majority retained a rich brown cast even after the most vigorous scrubbing. In all cases the eggs were covered by a thin layer of damp, decayed reeds.

We were unable to flush the bird from any of these nests, and were able to identify them only by patient and lengthy waiting. These Grebes are very hard to see on this lake, as they keep close to the reeds, and if found a short distance from them they immediately slip under the water and disappear. However,

they were seen feeding in the company of American Eared Grebes, Florida Gallinules and American Coots.

While these tiny Grebes are very timid and therefore hard to observe with much satisfaction, they are to us the most interesting of our local water birds, and have afforded us a great deal of pleasure, not to mention the sets which repose in our cabinets.

San Antonio, Texas, October 4, 1916.

MORE SUMMER BIRDS FOR SAN FRANCISCO COUNTY

By MILTON S. RAY

WITH PHOTO BY O. J. HEINEMANN

MY LIST of San Francisco County birds in the CONDOR of March, 1906 (pp. 42-44) was based almost entirely on observations in Golden Gate Park and the Presidio Reservation, these localities having furnished 41 of the 44 listed. Later field work in the Merced Lakes region, in the southeastern corner of the county, has yielded so many species new to the list that I have considered it advisable to publish the present paper. While covering, principally, the notes of Henry W. Carriger, J. Roy Pemberton and the writer, a number of records made by others have also been incorporated. Although the Farallon Islands form a part of our county, it was deemed, on account of their distance from the mainland, inadvisable to include the avifauna of those sea islands in the list. There is little doubt also that considered geographically the islands properly belong to Marin County, being a continuation of the Point Reyes peninsula. Unless otherwise specified all Lake Merced notes refer to the southern lake. "Summer", in the title, is intended to cover the nesting period and hence must necessarily cover a large part of spring as well. Several records, including that of the Nighthawk and of the Hermit Thrush, have been omitted owing to the subspecific rank having not been definitely determined.

45. *Aechmophorus occidentalis*. Western Grebe. While noted by Carriger and myself on Lake Merced at various dates in spring and summer we have no nesting record for this species. A very interesting record is A. M. Ingersoll's, who collected a set of eggs, incubation advanced, on Lake Merced, June 1, 1885.

46. *Colymbus nigricollis californicus*. American Eared Grebe. Noted on various occasions on Lake Merced.

47. *Podilymbus podiceps*. Pied-billed Grebe. A common nester at Lake Merced through a long season. On August 6, 1911, I collected a typical nest, of decayed vegetation, floating just off the tule-fringed lake-shore with six eggs in which incubation was well along. Mr. A. M. Ingersoll also has eggs of this grebe taken at Lake Merced.

48. *Gavia immer*. Common Loon. Noted on Lake Merced July 4, 1911, and other dates.

49. *Lunda cirrhata*. Tufted Puffin. Noted on San Francisco Bay near Sausalito in spring.

50. *Cephus columba*. Pigeon Guillemot. Found nesting on the rocky shores near the Golden Gate by Geo. W. Schussler, June 5, 1912. Eggs, two, fresh. (See CONDOR, XVIII, p. 35.)

51. *Uria troilus californica*. California Murre. Noted on San Francisco Bay near the Golden Gate during the spring months.

52. *Larus occidentalis*. Western Gull.

53. *Larus californicus*. California Gull. Great flocks of gulls were common on Lake Merced on every visit. Most of the birds were immatures.

54. *Phalacrocorax auritus albociliatus*. Farallon Cormorant. A colony of 500 nesting on Seal Rocks off the Golden Gate noted by William Leon Dawson, July 21, 1912 (CONDOR, xvii, p. 19). We have seen this bird on Lake Merced during the spring, but never in abundance.

55. *Anas platyrhynchos*. Mallard. We noted young of the year on Lake Merced July 4, 1911, and Carriger also saw parent with small young at Chain of Lakes in Golden Gate Park, May 22, 1910.

56. *Mareca americana*. Baldpate. Recorded at Stow Lake June 5, 1915, by W. A. Squires (CONDOR, xvii, p. 234).

57. *Marila affinis*. Lesser Scaup Duck. Female with three young noted on Stow Lake in early July, 1913, by George W. Schussler (CONDOR, xviii, p. 35).

58. *Oidemia deglandi*. White-winged Scoter. Seen April 23, 1911, and July 4, 1911, on Lake Merced by Carriger and the writer. Like the following, the birds seen were evidently non-breeders.

59. *Oidemia perspicillata*. Surf Scoter. Noted on April 23, 1911, and on other dates. On one occasion Carriger and I captured a crippled bird and it apparently expired in our hands. Laid shortly afterwards in the bow of the boat, we were astonished to see it leap overboard and splashingly paddle away.

60. *Erismatura jamaicensis*. Ruddy Duck. While Carriger and I have found this a common bird on the Merced Lakes a careful search revealed no nests. Pemberton however, located one May 21, 1902, with two eggs, hidden beneath a canopy of tules on the shore of Lake Merced.

61. *Botaurus lentiginosus*. American Bittern. Noted on Lake Merced April 23, 1910, and on various other dates.

62. *Ardea herodias hyperonca*. California Great Blue Heron. Noted at Lake Merced April 23, 1910, July 4, 1911, etc. Carriger also found what he believed to be previously occupied nests of these birds in a grove of tall eucalyptus on the west shore of the lake.

63. *Butorides virescens anthonyi*. Anthony Green Heron. I noted this bird April 23, 1910, at Lake Merced.

64. *Nycticorax nycticorax naevius*. Black-crowned Night Heron. Noted at Lake Merced April 23, 1910, and on other dates.

65. *Rallus virginianus*. Virginia Rail. I noted this bird near the north lake and found an old nest with scattered egg-shells on April 30, 1911.

66. *Porzana carolina*. Sora Rail. Carriger noted a number of these birds on the edge of the tules on the western shore of Lake Merced.

67. *Lobipes lobatus*. Northern Phalarope.

68. *Phalaropus fulicarius*. Red Phalarope.

69. *Catoptrophorus semipalmatus inornatus*. Western Willet.

70. *Actitis macularia*. Spotted Sandpiper. Carriger noted the above four species during the spring at Lake Merced.

71. *Oxyechus vociferus vociferus*. Killdeer. I have noted this species on the Recreation Grounds in Golden Gate Park, and Carriger also records it as being seen in the Park Stadium. Both dates in late spring. Jesse Klapp, the park game warden, informs me that he found two nests of this bird in the Park Buffalo Paddock, one with three young and one two young during the spring of 1916, and that Killdeer also nested there in 1915 though he did not locate the nests.

72. *Accipiter velox*. Sharp-shinned Hawk. I noted this bird in the Sutro Forest, April 30, 1916.

73. *Pandion haliaetus carolinensis*. American Osprey. Carriger noted one of these birds in May flying over the Sutro Forest. The nearest breeding point I know of is near Hilton, Sonoma County, where Chase Littlejohn found it nesting in August, 1916. The nest, about 100 feet up at the top of a giant redwood, was at a bend of the Russian River known as Cape Horn and contained large young. The parents were often noted at the nest or fishing along the river.

74. *Aluco pratincola*. American Barn Owl. Carriger and I found this owl a common nester in the high sandy cliffs in the Merced Lakes region. April 23, 1910, a nest

was noted with large young. On April 15, 1911, one of several nests found, held six eggs slightly incubated. The photograph shows the writer suspended at the nest with Carriger at the top of the cliff.

75. *Speotyto cunicularia hypogaea*. Burrowing Owl. Dudley S. De Groot noted three of these birds on the hillside just south of Visitacion Avenue, February 24, 1915. Each took flight from the ground at the entrance of a burrow. The latter appeared as having been used, as excrement and pellets were in evidence. De Groot also informed me that he noted several other burrows on the hillside but did not return to make any later investigations.

76. *Tyrannus verticalis*. Western Kingbird. Jesse Klapp informs me that he found three nests in Golden Gate Park during June of the present year (1916), one with eggs and two with young.



Fig. 55. SHOWING RAY SUSPENDED AT NEST OF AMERICAN BARN OWL IN SANDY CLIFF FACING LAKE MERCED. CARRIGER AT TOP LOWERING ROPE.

77. *Corvus corax sinuatus*. Western Raven. Pair seen at Lake Merced July 23, 1911, by Carriger. There are unconfirmed records of its having bred there formerly.

78. *Agelaius phoeniceus californicus*. Bi-colored Red-winged Blackbird. Rather common at the Merced Lakes where Carriger found it nesting. On one occasion there I saw an unusual flock consisting of nineteen females and one male. On May 6, 1908, I noted a number of pairs nesting in the tules at Mountain Lake, in the Presidio Reservation.

79. *Loxia curvirostra minor*. American Crossbill. A number collected several years ago by Dudley Brown and John Carroll on 19th Avenue near Golden Gate Park; skins still preserved.

80. *Carpodacus purpureus californicus*. California Purple Finch. Abundant in

western half of the County, and undoubtedly nests there as I have found it breeding in similar localities just south of the line. Through an oversight I omitted this bird from my original list.

81. *Astragalinus lawrencei*. Lawrence Goldfinch. While I have found nests of this species just south of the County line my only record for our County is of a male seen March 19, 1916, near the Sutro Forest.

82. *Spinus pinus pinus*. Pine Siskin. An erratic breeder in various portions of the County. In 1892 a school chum lowered down a set of eggs from a nest, in the "Panhandle" District of Golden Gate Park, which for years I was unable to identify. A few years ago I found a sparsely marked set of Siskin eggs which are in every way identical. On March 16, 1916, south of the Park on a city street I noted a Siskin gathering material for a nest.

83. *Passerculus sandwichensis bryanti*. Bryant Marsh Sparrow. While neither Carriger nor I ever succeeded in finding a nest of this bird north of the County line there is a set of four eggs in the Museum of Vertebrate Zoology (no. 1463) taken by L. P. Bolander in a field near Lake Merced May 8, 1905, which I believe constitutes the only actual record of this bird's nesting in our County.

84. *Spizella passerina arizonae*. Western Chipping Sparrow. While not an uncommon breeder close up to the County line my only record here is April 20, 1908, when I noted a bird at Bosworth and Milton streets, in the Mission District.

85. *Junco oreganus pinosus*. Point Pinos Junco. This rather common resident species is unquestionably to be found nesting, as I have noted it at all seasons. Just across the County line I have collected several sets of eggs, and Pemberton also secured skins which proved typical *pinosus*. In view of this, the occurrence of *thurberi* on June 5, as recorded by W. A. Squires (CONDOR, XVIII, p. 202), would be all the more remarkable; but Carriger and I feel we must question that record unless specimens were taken to substantiate it. Jesse Klapp tells me that he found a Junco's nest (no doubt referable to this species, i. e., *pinosus*) with two nearly full grown young in Golden Gate Park during the spring of 1916.

86. *Pipilo crissalis crissalis*. California Brown Towhee. Jesse Klapp found a nest of this bird in Golden Gate Park in the spring of 1916, with four eggs. Neither Carriger nor I have seen it north of the County line. The California Brown Towhee is really such an abundant species in San Mateo County, in exactly similar country, that its rarity here is more remarkable than its abundance would be.

87. *Passerina amoena*. Lazuli Bunting. Pemberton noted a pair carrying nesting material near Ashbury Heights a number of times between June 1 and June 10, 1915, but did not succeed in locating the nest.

88. *Piranga ludoviciana*. Western Tanager. Recorded as being seen in Lafayette Square, May 6, 1908, by Clark C. Van Fleet (CONDOR, x, p. 181).

89. *Progne subis hesperia*. Western Martin. Carriger saw several at Lake Merced, April 28, 1912.

90. *Riparia riparia*. Bank Swallow. A very common nester in the sand banks at Lake Merced. A colony was noted nesting April 23, 1910. The only nest Carriger and I excavated contained a single fresh egg.

91. *Vireo huttoni huttoni*. Hutton Vireo. While rather common and undoubtedly breeding within the County neither Carriger nor I have a definite nesting record. A pair noted in Golden Gate Park, March 5, 1910 (Carriger); noted at Lake Merced April 23, 1910 (Carriger and Ray).

92. *Vermivora celata lutescens*. Lutescent Warbler. Carriger noted two of these birds near the Hayes Street entrance to Golden Gate Park, March 5, 1910. He also noted birds feeding young on Strawberry Hill; the exact date however is unavailable, as his records before 1906 were destroyed in the great fire of that year.

93. *Dendroica auduboni auduboni*. Audubon Warbler. This is a county that provides a proper summer environment for the Pine Siskin, so the Western Robin (recently recorded) may yet be found to have this warbler as a summer companion. The nearest breeding station I believe is Sonoma County (Grinnell, Pac. Coast Avifauna no. 11, p. 148). My latest dates here are March 25, 1906, April 1, 1906, March 31, 1907, March 19, 1911, March 27, 1915, and March 24, 1916.

94. *Geothlypis trichas sinuosa*. San Francisco Yellowthroat. A common breeder in the Lake Merced region. I found three typical nests April 22, 1911; two with four

eggs, advanced incubation, and one with three fresh eggs. All were about two feet up in wire grass and made of coarse flat weed stems and lined with fine light-colored grasses, loosely put together.

The name "Salt Marsh" Yellowthroat given this species appears rather misleading in that one might infer it inhabited the salt marshes exclusively, while on the contrary Carriger and I have found it most abundant along fresh-water lakes and streams and in wet meadow land. In fact we have no spring or summer record of it in the salt marshes of San Mateo County, while we found it a rather common nester in certain localities about fresh water a mile or so west of them. Chase Littlejohn writes: "This yellow-throat is found commonly about the marsh here (Redwood City, San Mateo County) during the fall, and less commonly during the winter. In the spring a few are about but soon disappear. They do not nest on the salt marsh, but at one place where the ground is springy and covered with willows they nest among the weeds and tules that are half fresh and half salt water plants, as very high tides reach quite a distance into the willows where they grow at the very edge of the salt marsh. All other nesting sites that I know of are some distance inland about moist or swampy ground."

Our single exception to this is Carriger's finding a nest of this bird with four eggs in a salt marsh north of San Rafael, April 12, 1914. This, however, was high ground and scarcely subject to overflow. In view of the fact that a bird is seldom given a vernacular term referring to the locality it inhabits unless it be its summer home, Carriger and I suggest that the term "San Francisco", referring to the San Francisco Bay region which it inhabits, be used instead of "Salt Marsh".

95. *Anthus rubescens*. American Pipit. Carriger and I have noted this bird in the late spring.

96. *Mimus polyglottos leucopterus*. Western Mockingbird. A Mockingbird remained in the gardens about San Jose Avenue and 25th Street, in the Mission district, during the late spring in 1906. It was possibly a released cage bird. (See CONDOR, VIII, p. 76.)

97. *Thryomanes bewickii spirurus*. Vigors Wren. Rather common, but nests found have been few. April 15, 1911, at Lake Merced, Carriger located a nest in a hole in a sand bank with five eggs in an advanced stage of incubation. Jesse Klapp also notes finding a nest in Golden Gate Park.

98. *Telmatodytes palustris paludicola*. Tule Wren. Rather common at Merced Lakes. On April 30, 1911, Carriger and I opened two nests, one holding three fresh eggs and the other five eggs with incubation advanced. On July 23 of the same year we noted another nest with three eggs, incubation advanced; also a nest with four eggs in like condition, July 4, 1912.

99. *Penthestes rufescens barlowi*. Santa Cruz Chickadee. While the Barlow Chickadee is quite a common resident, neither Carriger nor I have located a nest north of the San Mateo County line. Dudley S. De Groot writes of three nests found in Golden Gate Park as follows: "A nest found April 7, 1916, which contained six badly incubated eggs lying in a thick bed of rabbit fur, was located eight feet up in a hole in the side of a log cabin. Another was in a small cavity fifteen feet up in a eucalyptus and contained young almost ready to fly. The third nest was remarkable for its situation, being placed in a pipe leaning against an out-building. The nest was about one and a half feet down the pipe, which was only three inches in diameter, and contained, in very cramped quarters, young birds about half grown." Jesse Klapp also notes it as nesting in the park.

100. *Planesticus migratorius propinquus*. Western Robin. Dudley S. De Groot found a nest of the Robin in Golden Gate Park fifteen feet up in a patch of bushy young bamboos. It was the usual structure of grasses and mud mixed with considerable string. When found, May 21, 1916, it contained two full-fledged young. Jesse Klapp is, however, I am quite sure, entitled to the credit of being the first to find this bird nesting in our County. I noted at least 3000 Robins one spring evening of the present year on the grassy lawns in the Park Buffalo Paddock near the beach.

The following notes refer to birds previously recorded by me in the list published in the CONDOR of March, 1906.

1. *Fulica americana*. American Coot. Carriger and I can record some unusually late nests. July 4, 1911, one egg, pipped; July 23, 1911, four nests, three with seven eggs and one with eight, all apparently fresh and incomplete. These were all at Lake Merced.

10. *Geococcyx californianus*. Roadrunner. A second record for the County, Lake Merced, March 19, 1911 (Carriger and Ray).
11. *Ceryle alcyon*. Belted Kingfisher. We located a freshly-dug nesting burrow March 19, 1911, and an old one, July 4, 1912; both in sandy cliffs at Lake Merced.
12. *Colaptes cafer collaris*. Red-shafted Flicker. De Groot found a nest in a fence-post cavity in Golden Gate Park, May 21, 1916, with five well-incubated eggs.
13. *Calyppe anna*. Anna Hummingbird. An early nesting date is that of a set of two fresh eggs noted by De Groot at Lake Merced, February 23, 1915. He notes that this and other early nests were thickly lined with feathers, perhaps for the reason he gives, that plant down and "willow cotton" were not procurable. He states that all late nests had the latter lining.
15. *Selasphorus allenii*. Allen Hummingbird. I have since found this hummer to be a common nester through a long season in our County. Carriger found a very beautiful nest in an acacia tree near North Lake, April 18, 1915. It was exceptionally high walled, very light colored and daintily decorated. Incubation had made a slight start in one of the two eggs it held. In sharp contrast to the actions of *Calyppe anna*, this hummingbird usually whizzes off its nest and does not return to debate the question of ownership. This, a very striking difference in temperament, I do not remember having seen noted by other writers.
17. *Empidonax difficilis*. Western Flycatcher. A second breeding record for the County is De Groot's nest found in the Lake Merced region, May 26, 1916. It was placed fifteen feet up in a cypress crotch and held four eggs, dark with incubation.
18. *Otocoris alpestris actia*. California Horned Lark. On April 22, 1911, Carriger collected a set of four well-incubated eggs in a very open situation on the Ingleside Golf Links. The bird flushed at our feet it being almost dusk at the time. De Groot also found a nest of this bird, May 24, 1915, on the top of Twin Peaks about ten feet from the reservoir. The nest, a slight hollow, grass lined, contained three eggs well along in incubation.
19. *Sturnella neglecta*. Western Meadowlark.
23. *Euphagus cyanocephalus*. Brewer Blackbird. Carriger and I have noted both these species breeding in the Lake Merced district.
24. *Carpodacus mexicanus frontalis*. House Finch. I saw a veritable cloud of these birds, at least 5000, settle on the telegraph wires and nearby trees near Lake Merced, April 23, 1911. From the thousands of feathered throats came a great chorus that was indescribably beautiful.
27. *Passer domesticus*. European House Sparrow. I can record two very late nesting dates: August 30, 1914, birds building in the Mission district; October 10, 1914, four fresh eggs noted in a nest above a door step, where I then lived, no. 299 San Jose Avenue.
34. *Petrochelidon lunifrons*. Cliff Swallow. Carriger and I noted an unusual departure in the nesting of this bird, in the sandy cliffs at Lake Merced. The sand was evidently too soft to hold a plastered nest, so the birds were using burrows like the Bank Swallows, with a very small arch of mud plastered over the entrance.
43. *Hylocichla ustulata ustulata*. Russet-backed Thrush. My only nests of this bird were several found years ago. De Groot located one May 21, 1916, in Golden Gate Park, with four fresh eggs. It was situated in a patch of bamboo bushes close to the nest of the Western Robin, previously noted.

San Francisco, California, October 9, 1916.

FROM FIELD AND STUDY

Grammatical Errors in Vernacular Names.—Many times we see earnest recommendations in these columns from ardent ornithologists advocating changes in the vernacular names of birds, the present names of which seem to be misleading or erroneous. Two apparently glaring grammatical errors seem to have escaped notice up to now but here we have them.

Most birds have qualifying names which tend to point out some peculiarity in the

bird which distinguishes it from its relatives in the same genus. Where the character is one of habit or pertains to its notes and song the present participle is the form the adjective takes. Thus we have Laughing Gull, Cackling Goose, Whooping and Whistling Swans, Whooping Crane, Ant-eating Woodpecker, Worm-eating Warbler, Warbling Vireo, and Mourning Warbler. Departures from this practice occur in such names as Melodious Grassquit, Clapper Rail and Trumpeter Swan, but these forms seem permissible.

There are two names, however, which are very much off color, Screech Owl and the Song Sparrow. It seems that, aside from the grammatical error committed, the more prevalent practice should have dictated that these names be Screeching Owl and Singing Sparrow. Screech Owl and Song Sparrow seem good enough names through long usage, but witness how ludicrous the above list of birds would appear were we to change their names to agree with the form expressed in the case of the owl and the sparrow. We would have Laugh Gull, Cackle Goose, Whoop and Whistle Swans, Whoop Crane, Warble Vireo, Mourn Warbler, Melody Grassquit, Clap Rail and Trumpet Swan!

Nouns are used as adjectives, but the meaning is totally different from that in which the present participial form is used. Thus, where we have cow-barn, tire-rack, shot-gun or iron knife the meaning is a barn for a cow, a rack for tires, a gun for shot, and a knife of iron; simply a phrase shortened into two nouns, one of which is used as an adjective. The meaning of Screech Owl and Song Sparrow is obviously an owl which screeches and a sparrow which sings, and not an owl for screeches nor a sparrow for or of song.

So when we get around to doing any changing of names let us set these right before the Gull, Swan and Goose laugh, whoop and cackle at the poor little owl and sparrow!—
J. R. PEMBERTON, Colton, California.

Are there Two Forms of the Bryant Marsh Sparrow in San Francisco County?—Joseph Mailliard's note on the Bryant Marsh Sparrow in a recent issue of THE CONDOR suggests a solution to what has been a puzzling problem to me for some time. I have found the Bryant Marsh Sparrow breeding on the Islais Marsh, south of the Potrero district. But there are other birds apparently of this species, averaging somewhat lighter, however, found resident in the Presidio, on the Ingleside Golf Links, and high up the slopes of Twin Peaks. I have noted them many times during the breeding season at the two last named stations. Most of the books speak of this sparrow as though it were found nowhere else than on the salicornia marshes near sea level. It is my opinion that there is an upland form of *Passerulus sandwichensis bryanti* which verges toward *P. s. alaudinus*, and that it ranges from Humboldt County south at least to the Transition area of San Francisco County. I may add that I noted this same light-color Bryant Marsh Sparrow last July on the uplands of western Sonoma County some miles from the sea.—W. A. SQUIRES, San Francisco, California.

Caspian Tern in the San Joaquin Valley.—At the time of the appearance of the September (1916) number of THE CONDOR, I had what appeared to be in newspaper parlance a "scoop" on the Caspian Tern (*Sterna caspia*) in the way of a late summer, or early fall interior record, and had a short article upon this subject scrolled out, waiting only the disappearance of this species from the scene before finishing it up and sending it in to the Editor. But meanwhile the above-mentioned number of our journal came out containing John G. Tyler's *Supplementary List of Birds of the Fresno District*, in which there are several records of this species.

However, as Grinnell's *Distributional List of the Birds of California* gives this bird as a "Rather rare winter visitant and migrant, both coastwise and in the interior", with a few records following, most of which are winter with only two spring and no fall records, it should be worthy of note that several individuals have been paying a prolonged visit to the Rancho Dos Rios, near the mouth of the Tuolumne River, Stanislaus County, as many as a dozen having been seen at one time and two specimens taken for positive identification.

It happened this summer that some seepage water was left on our ranch in a depressed piece of ground several acres in extent, and the resulting shallow ponds proved very attractive to several species of aquatic birds. Among these the Caspian Tern chose

these ponds for a temporary abiding place from which it sallied forth from time to time to scan the neighboring lagoons for stray fish floating on the surface of their waters, flying up and down each lagoon or lakelet for a few turns, picking up a tidbit here and there and finally returning to its resting place at the shallow ponds.

For several years past large terns have been noticed in the spring, mostly in May, flying north in groups of two or three, some days quite a number passing by, perhaps half a dozen being in sight at once. But no opportunity ever offered for procuring a specimen for positive identification, although there seemed but little doubt as to the species being *Sterna caspia*. It always happened that when my gun was near, the birds were too far away to reach, and when they were near enough the gun was too far away! Returning in the fall the same thing happened. This fall, however, the large terns were first noticed on September 4, when three or four were seen flying up and down a charming little lake upon the shore of which the main house is situated. Retiring shortly from this lake the birds flew over the shallow ponds spoken of above, which they evidently made their headquarters.

For several weeks after this date some of these birds were always in evidence, while their rather harsh cry or else a sort of gentle little short and trilling whistle could be heard not only at any time of daylight but even in the late dusk of the evening. They were very wary and the chances of happening within gunshot greatly against the collector, but two specimens were finally secured, proving their identity beyond a doubt. On October 6 there were still three or four of the birds on the place.—JOSEPH MAILLIARD, *San Francisco, California*.

Nesting Habits of the Virginia Rail in Mariposa County, California.—On June 5, 1916, while mowing grass in a small marsh on our home place, on Smith Creek near Coulterville, Mariposa County, California, my father discovered the nest and eggs of a Virginia Rail (*Rallus virginianus*). The nest was a tower-like structure composed of flat marsh grasses. It measured eight inches in height and the same in diameter. The ten brown-and-lilac-spotted eggs were just beginning to be incubated.

As compared with eggs of other birds nesting in this vicinity they resemble most closely those of the Valley Quail, but are proportionately longer and darker colored. The grass clump in which the nest was situated was not disturbed in mowing, and near by there was a high bank from which the nest could be easily observed. When anyone approached the vicinity of the nest the incubating bird would slip quietly off; but sometimes she could be heard splashing through the water as she ran. Usually she did not go more than six feet from the nest and would then stand quietly in the grass where she would appear like nothing more than a dark shadow. Whenever any one of us would go near the nest, which we did almost every day, the female would utter a low clucking sound.

Nothing was seen of the male until June 18 when, as we approached the nest, an ear-piercing scream came from him as he stood some distance away in the marsh grass. This whistle was answered by a similar but softer note from his mate. The male showed himself only momentarily as he skulked through the grass as if attempting to distract our attention from the nest.

On June 19 there were six coal black young in the nest. They had black-ringed pink bills, and their feet were very large in proportion to their bodies. Now the demeanor of the female changed. She forgot her shyness and walked out in the open within three feet of where we stood. She fluffed up her feathers after the manner of a sitting hen and uttered many clucks and whistles which were answered by the shrill whistle of the male. He was not so brave as she, and did not show himself except at intervals. On this same day several of the young clambered out of the nest into the water. We replaced them and quitted the vicinity so as not to disturb the family. Later in the day we visited the nest again and found the female absent. Soon the male whistled, his mate answered, and she soon appeared from a grass clump, swimming and wading across a bit of open water to the nest.

By the evening of the nineteenth another egg had hatched and on the morning of the twentieth two more. The last egg hatched on the afternoon of the twentieth. On the morning of June 21 the family had departed and we saw no more of them, save for one that showed itself for a moment in the marsh one day late in July.—DONALD D. MCLEAN, *Coulterville, California*.

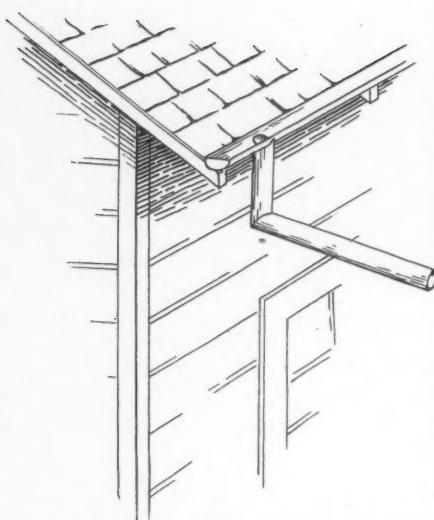


Fig. 56. DRAIN PIPE USED AS A NESTING SITE BY A PAIR OF ASH-THROATED FLYCATCHERS.

pipe, but later used the entrance through the eave trough, which was little more than two and one-half inches in diameter. At the time of our visit, June 23, 1916, the nest contained young, which, by their calls, must have been partly feathered. Although the Crested Flycatcher of the East (*Myiarchus crinitus*) is known to nest occasionally in an artificial environment this is the first instance that has come to our notice of the Ash-throated Flycatcher, with its notably retiring disposition, taking kindly enough to civilization to nest in a door yard.—HAROLD C. BRYANT and AMY M. BRYANT, Berkeley, California.

Bird Notes from Palo Verde, Imperial County, California.—*Querquedula cyanoptera*. Cinnamon Teal. On June 30, 1916, I was out in the flooded country when I found a duck's nest with seven creamy white eggs. No bird was on the nest but there were lots of duck tracks in the mud close by. The nest was under a small bush on the top of a levee about three feet from the water's edge. It was not very well lined but contained some grass and a few feathers. On July 2 I was back, but the young had hatched; on looking around I saw six young, with the mother teal trying to get them away. The old male was on hand and tried to lead me away with the broken-wing game. The young were seen often after that but would always be in the brush.

Porzana carolina. Sora Rail. One pair was seen all summer in a large bunch of tufts on the lagoon about half a mile south of Palo Verde; no nest found.

Plegadis guarauna. White-faced Glossy Ibis.

Himantopus mexicanus. Black-necked Stilt. Both these were seen all summer from May 12, till the fall migration, but no nests were found, though some young birds were seen flying around.

Oxyechus vociferus. Killdeer. Several nests were found and lots of young seen in the flooded country during high water.

Melopelia asiatica. White-winged Dove. No nests were found this year, but several seen in 1915. This year the birds were mostly back on the mesa or along the edge of the valley. They may have moved back on account of the flood.

Chaemepelia passerina pallidescens. Mexican Ground Dove. Two nests found in 1915. Only one pair of birds seen regularly this summer. Several seen in August and September in the grass flats where the overflow had been.

Peculiar Nesting Site of Ash-throated Flycatcher.—We had just discovered a Phainopepla's nest in a pepper tree along side of a road in Linda Vista, four miles west of Pasadena, California, when a woman appeared and asked us what we were doing. After explaining, to her satisfaction, that we did not intend to disturb any of the nests in her vicinity she gained sufficient confidence in us to ask the identity of a bird nesting in her yard. Investigation disclosed an Ash-throated Flycatcher (*Myiarchus cinerascens cinerascens*) carrying food in its bill to a peculiarly situated nest. At the northeast corner of the house a four-inch galvanized pipe about three feet long had been soldered to the outlet of the eaves trough in order to prevent rain water from falling against the house. In the elbow of this three-foot length of pipe a pair of Ash-throated Flycatchers had built their nest (see fig. 56).

We were told that in building the nest the birds first entered the open end of the

elbow and worked back into it.

Parabuteo unicinctus harrisi. Harris Hawk. July 25, 1916, I saw four full-grown young, not able to fly. They were in a cottonwood in a small marsh about two miles south of Palo Verde.

Pyrocephalus rubinus mexicanus. Vermilion Flycatcher. On April 7, 1916, I found a nest north of the store in a screw-bean over-hanging the water. There were two eggs in it about ready to hatch. The young grew up and left the nest. I also found a nest back of the schoolhouse on April 16 with fairly fresh eggs. The birds were ready to fly on May 12. On passing the nest north of the store on June 1 I looked in and was surprised to see three more young birds in the nest, and on looking into the nest back of the schoolhouse found it to contain three eggs. In both cases the nest was twice used in the same season.—LEO WILEY, *Palo Verde, California*.

Another Record of the Wood Ibis in California.—On Sunday morning, August 13, 1916, while returning north on the Santa Fé from San Diego, I was surprised and delighted to see a flock of about twenty Wood Ibises (*Mycteria americana*). I was sitting on the rear platform of the observation car and saw the flock just after our train had crossed the broad delta of a small stream near Oceanside. The birds were flying from the ocean, inland up the rather broad valley of the practically dry stream. Although I had not seen a live Wood Ibis since August, 1888, when I saw seven on the lower Wabash, I at once recognized these birds. Their heavy wing-flaps, their white bodies and black wings could not be mistaken. Messrs. Grinnell and Daggett saw a flock in the same place August 5, 1902 (see *CONDOR*, v, 1903, p. 18).—BARTON WARREN EVERMANN, *San Francisco, California*.

The Alaska Water-thrush in Marin County, California.—August 13, 1916, I took a trip to Muir Woods in company with several friends. While hiking along what is known as the Bootjack Trail, I suddenly came upon an Alaska Water-thrush (*Seiurus noveboracensis notabilis*) perched on a large boulder near a stream. At this point there was a great deal of underbrush and ferns along the banks, and several small cataracts in the stream. Upon catching sight of me the bird uttered small chirps, and continually teetered and dipped from side to side. I was able to approach within a few feet of it, and noted that the general color was brownish, with black streakings on the breast, and a whitish line through the eye. After a few minutes another one appeared, and the two flew into the underbrush. The white stripe through the eye, and the teetering motion like that of the American Dipper, to my mind makes the identification of this bird unmistakable. As there seem to be only four other records of the occurrence of this species within the State, I thought that my finding it in Marin County might be of some interest.

—HAROLD E. HANSEN, *San Francisco, California*.

The Dwarf Screech Owl in the State of Washington.—Unless it be for an occasional "sight record", I believe the Dwarf Screech Owl (*Otus flammeolus idahoensis*) has seldom been recorded in Washington. It gives me great pleasure, therefore, to report the capture of an adult female at Kiona, Benton County, Washington, by Mr. F. R. Decker of that place. An examination showed it to be beyond much doubt a breeding bird. The only possible nesting sites in the vicinity were numerous holes made by Bank Swallows, etc., in a large sandy cliff, so it is possible that this bird may use something besides holes in trees as a place for raising its young. The specimen was taken on May 29, 1916, and is now in the collection of Mr. D. E. Brown, at Seattle, Washington.—J. H. BOWLES, *Tacoma, Washington*.

Cleaning Skulls and Skeletons: a Supplementary Note.—Since the publication of the description of the process of cleaning skulls and disarticulated skeletons two years ago (*CONDOR*, xvi, 1914, pp. 239-241), different re-agents have been tested to replace in whole or in part the solutions described. These experiments have resulted in one change, only. In place of the Carbolic Acid, substitute Cresylic Acid (Cresol, $C_6H_4CH_3OH$): one part Cresol in place of twenty-five to fifty parts of Carbolic Acid. One-half ounce of Cresylic Acid has been found to be sufficient for a solution containing two quarts of ammonia and six gallons of water. No harmful effects have been caused by the use of a very concentrated solution of Cresol. Cresol costs about thirty-five cents a pound, thus making its use more economical than that of Carbolic Acid.—F. HARVEY HOLDEN, *Museum of Vertebrate Zoology, University of California, Berkeley*.

Some Field Notes from Western Sonoma County, California.—I spent the month of July, 1916, in western Sonoma County, with headquarters at Camp Meeker. Several trips were made into various parts of the county. These trips covered pretty thoroughly the territory from Santa Rosa to Cazadero, thence west to the ocean and south to the Marin County line. The following list does not contain all the birds noted; only those are mentioned whose occurrence in the territory explored seems worthy of note.

Lunda cirrhata. Tufted Puffin. One flew out from under an over-hanging rocky cliff near the mouth of the Russian River, July 17.

Oceanodroma kaedingi. Kaeding Petrel. A bird believed to be of this species, certainly a petrel, was seen to fly out of a cleft in a high rocky cliff about one mile south of the mouth of the Russian River on the same day that the puffin was seen. It is possible that a few of these birds nested there earlier in the season.

Mergus serrator. Red-breasted Merganser. A male and female seen on the Russian River about a mile from the ocean on July 17. This duck is a common winter visitant to these shores, but its occurrence in mid-July seems rather unusual.

Actitis macularia. Spotted Sandpiper. Several seen on the Russian River between Monte Rio and Duncan's Mills, July 10. Two young not yet able to fly, but abundantly able to run, were seen.

Columba fasciata fasciata. Band-tailed Pigeon. Two were seen on Willow Creek, July 17. More were heard hooting in the redwoods along the same stream.

Pandion haliaetus carolinensis. American Osprey. One was seen about a mile from the mouth of the Russian River on July 17. It was catching fish by plunging into the river. Two others were seen a mile above Monte Rio on July 22. One nest was noted on the very tall stump of a broken redwood near Rio Campo. Bird students will doubtless be glad to know that this interesting bird is still breeding on the Russian River.

Agelaius phoeniceus caurinus. Northwestern Red-winged Blackbird. The Red-winged Blackbirds of the lower Russian River seem to me to be of this subspecies rather than *Agelaius phoeniceus californicus*. No specimens were taken, but it is my opinion that an examination of specimens would reveal that what I have suggested is true.

Junco oreganus thurberi. Sierra Junco. Birds of this species were seen feeding young at Camp Meeker on July 2. They have been noted at Cazadero before, but this seems to be the first time they have been found breeding as far south in Sonoma County as Camp Meeker.

Piranga ludoviciana. Western Tanager. An adult male was seen on the Russian River about a mile above Duncan's Mills, July 10.

Hylocichla guttata slevini. Monterey Hermit Thrush. Noted twice at Camp Meeker and heard almost every evening in the redwood cañons back of the camp.—W. A. SQUIRES, San Francisco, California.

Notes on the Dark-bodied Shearwater.—*Puffinus griseus* has been observed on San Francisco Bay more frequently during July and August of the present year than it has ever before been my good fortune to record, recent observations having been as follows:

July 20, 4:40 P. M. A small movement was noted westerly from Alcatraz Island, where the birds were working their way oceanwards along the outer edge of an extremely heavy "channel fog".

July 21, 4:35 P. M. A similar movement was observed under like conditions in about the same locality.

July 22, 8:17 A. M. A small group of these birds was seen, again in the same locality, bobbing up and down on the choppy water. As the ferry boat approached, they lumberingly took to wing, passing directly across our bow, some dropping on the water but a few feet away. This afforded such a close view as to confirm the identification.

August 7, 7:15 A. M. A lone individual was seen settled on the water and in the same locality.

The last two records were made on beautifully clear days thus casting doubt upon the theory that San Francisco Bay occurrences are due to misdirected wanderings during exceptionally thick fogs. It now seems more probable that unusually heavy runs of fish bring us these casual visitors.—JOHN W. MAILLARD, San Francisco, California.

Snakes as Nest Robbers.—During the spring and summer of 1916, while collecting near Colton, California, we had the unpleasant experience of returning to many nests, which had a few days before contained incomplete sets or been ready for eggs, only to find them empty. Suspicion was not directed towards the birds themselves because of the great variety of species in which this occurred, nor could it be directed towards jays, for none were present within several miles. Cats, weasels, skunks and foxes were to be eliminated, for in no case was a nest found to be in the least ruffled or disturbed, the eggs having been extracted as deftly as we could have done ourselves, perhaps more so. Lack of any snakes in evidence and the large numbers of nests thus violated prevented a charge being made at the time against them. It almost seemed as if some other collector was dogging our steps and getting our booty.

One day, however, as a nest of a Least Vireo, which was due to have a full set, was approached, a great twittering, crying and chattering from the parent birds was heard. As the nest came into view the cause of the disturbance also appeared. It consisted of a nice slim brown and white snake nicely poised above the nest which was now quite empty. It can not be said with certainty, but it *appeared* that some of the egg was still upon his chin!

On the same day attention was called to a nest of the Black-chinned Sparrow by the cries of the bird, and examination disclosed a thin striped snake with his head actually inside the cup of the nest. The nest was empty and the snake was evidently looking for more.

Another instance which came to our notice, but was not observed by us, showed the collecting proclivities of the snake. In this case a nest of the Pacific Black-headed Grosbeak, which was placed seven feet from the ground in a small sycamore tree, was robbed by a gopher snake. The robbery was witnessed by a boy and reported to us.

The snakes concerned in these three instances were of different species: A Milk or King Snake (*Lampropeltis boylii*) got the vireo eggs; a Garter Snake (*Thamnophis hammondi*) got the sparrow eggs; a Gopher Snake (*Pituophis catenifer*) got the grosbeak eggs.

From the large number of robbed nests which came to our notice, it would appear that snakes, probably nearly all varieties present, depend in part during the nesting season on eggs and possibly small young for food. Nearly all the nests so robbed were placed in low bushes and were easily reached by snakes. The fact that a bird will raise a hue and cry as a snake, itself unaware, approaches the nest, probably leads the snake to look for the cause of the anxiety on the part of the bird, and the nest is found. It seems to me improbable that a snake can find a nest without being directed by the bird.

Now while a snake has a perfectly good right to hunt his prey, it seems too bad that they cut into our field. At the same time it does not seem justifiable to kill at sight each and every snake; much better take off the hat to him and then chase him well into the next county where he will do the most good.—J. R. PEMBERTON and H. W. CARRIGER, *Colton, California*.

Spotted Owl from the San Gabriel Canyon, Los Angeles County, California.—While trout-fishing near Cold Brook Camp in the north fork of the West Fork of the San Gabriel Canyon, Los Angeles County, on May 1, 1916, I took a beautiful adult male Spotted Owl (*Strix occidentalis occidentalis*). The bird was sitting about fifty feet up in a large oak tree in a narrow rather densely shaded canyon, at an elevation of nearly four thousand feet. The summer of 1914 I spent two months at Cold Brook but did not meet with any of these owls, although large owls, perhaps of this species, were reported to me several times.—WRIGHT M. PIERCE, *Claremont, California*.

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EDITORIAL NOTES AND NEWS

Editorial acknowledgment is hereby made to Mr. J. R. Pemberton for his efficient service in compiling the Index which concludes the current volume of THE CONDOR.

Two Californians went East to attend the American Ornithologists' Union congress held in Philadelphia this year, Mr. Joseph Malliard and Mr. J. Eugene Law. A wire (November 13) has come from the former, announcing the election to Fellowship, of Mr. Harry S. Swarth. This is a well-deserved recognition of the high grade of Mr. Swarth's systematic work on Western birds. The number of Fellows in the A. O. U. is restricted to fifty. There are now six A. O. U. Fellows residing west of the Mississippi.

The *Ibis* for April contains an article of unusual worth, by C. F. M. Swynnerton, on the coloration of the mouths and eggs of birds. The significance in some cases seems to be clearly that of warning, there

being an accompaniment of bright color or conspicuous pattern with disagreeable taste or odor, such as is proven to discourage attention from potential enemies. Thus the older idea of a directive meaning must in part be supplanted. Here is a line of observation well worth taking up by field ornithologists in America.

Alice Hall Walter, in the school department of September *Bird-Lore*, utters some timely warnings in regard to current methods of popularizing bird study. She has clearly perceived an unfortunate tendency which can only be counteracted by repeated warnings such as she sounds. The trend of her remarks is indicated by the following quotations. "The superficial student, interested only in the popular side of ornithology, is apt to shun the trained ornithologist's method, to balk at his standard of thoroughness. . . . To be unable to concentrate one's attention upon a single problem which may be solved by careful observation" is a serious defect, "resulting inevitably in a lowered standard and a circumscribed acquaintance with bird-life." Whenever this kind of bird-study "tends to a sentimental, inaccurate and uninspired conception of the place of birds in nature and their value to man, it deserves the criticism of having degenerated into a study which cannot hold a secure place . . ." in schools or anywhere else, and is no longer worth encouraging.

The death of Lieutenant-colonel E. Alexander Mearns took place at Washington, D. C., on November 1, in the 61st year of his age. Mearns is known to western ornithologists more especially through his field work along the Mexican boundary. Many valuable articles on southwestern birds have appeared from his pen.

F. E. L. BEAL AND ECONOMIC ORNITHOLOGY IN CALIFORNIA

Our present knowledge of the food habits of California birds is in a large measure due to the painstaking work of Foster Ellenborough Lascelles Beal, Assistant, United States Biological Survey, who for many years devoted considerable attention to the economic relations of the birds of this State. The extent and importance of this work is emphasized anew by the news of Professor Beal's death, which took place at his home in Branchville, Maryland, on October 1, 1916, in his seventy-seventh year. From the fact that he was an honorary member of the Cooper Ornithological Club, and in view of his accomplishments in economic ornithology, it is fitting that a short review of Professor Beal's work in California appear in THE CONDOR at this time.

When the United States Department of Agriculture began investigations into the food habits of California birds, Professor Beal was sent to this State and placed in charge of the work. His studies were planned with a view to obtaining an accurate determination of the economic status of every species of California bird that inhabits orchards, in order that it might be possible for the fruit grower to discriminate between friends and foes, with suggestions as to remedial measures for saving fruit from destructive species. Professor Beal spent within the State the fruit seasons of 1901, 1903 and 1906, in all a period of about nineteen months, collecting stomachs of the various birds and

and conditions in California appear in the introductory paragraphs. In the treatment of each species evidence of two kinds is given, statements of ranchers, and results of stomach examinations. In the conclusions reached, stress is laid upon the nature of the yearly and seasonal food, summaries of which are given for each species. The second part, issued in 1910, treats of thirty-three additional species. Only four California birds are finally blacklisted on economic grounds, these four being the two bluejays, the Linnet and the Red-breasted Sapsucker.

"How birds affect the orchard" (1900) and "The relation of birds to fruit growing in California" (1904) were two Year-book publications also resulting directly from work



Fig. 57. PROFESSOR F. E. L. BEAL ON ONE OF HIS VISITS TO CALIFORNIA. AT LUNCH IN THE SANTA CRUZ MOUNTAINS, SEPTEMBER 4, 1901. PHOTO TAKEN BY W. OTTO EMERSON.

investigating conditions in fruit-growing sections. The larger part of the time was spent at Hayward, Alameda County, in the Pajaro Valley, Santa Cruz County, and at Pasadena, Los Angeles County. The co-operation of scientific collectors was also enlisted, with the result that many additional bird's stomachs were sent to Washington.

As a result of this work, there were published under Professor Beal's authorship, two bulletins entitled "Birds of California in relation to the fruit industry" (U. S. Dept. Agric., Biol. Surv., Bull. 30; *ibid.*, Bull. 34). The first, published in 1902, treats of the Linnet and thirty-seven other species of birds. Some general statements regarding the depredations of birds in fruit orchards,

in this State. Guarded statements like the following are characteristic of Mr. Beal's work: "The value of their [the birds'] work in dollars and cents is difficult of determination, but careful study has brought out much of practical importance in ascertaining approximately to what degree each species is harmful or helpful in its relation to the orchard." The fair treatment he accorded both sides in the controversy regarding the economic value of birds, won support for his standpoint and developed interest in his work.

In succeeding bulletins such as "Food of the woodpeckers of the United States", "Food of our more important flycatchers", and several briefer reports, additional infor-

mation on the food habits of California birds is given.

The economic work of Professor Beal came at a time when any esthetic or economic value that a bird might have was entirely overshadowed by depredations made more obvious by the conditions existing in a new country. His bulletins brought forward such conclusive evidence, however, as to convince most people that while birds sometimes inflict injury upon field crops and orchard trees and their products, they are often of great service in destroying enemies of the same crops, and that the aid so rendered in a subtle way may far more than offset the harm that is so apparent.

Mr. Beal's training was that of a scientist, for he was educated at the Massachusetts Institute of Technology. He was appointed Professor of Engineering at Iowa State College, later on becoming acting professor of zoology and comparative anatomy in the same institution. His interest in natural history finally led him in 1891, to join the staff of the United States Biological Survey. Throughout his connection with the Survey his interest was centered in economic ornithology. Twenty-five years of his life were therefore devoted to this branch of science, and most of the workers in the same field now with the Biological Survey received their training at his hands.

His many economic papers have clearly demonstrated the dollars and cents value of birds, and have greatly helped in building up the present-day sentiment favoring bird protection. The farmer, glad to receive help in distinguishing friend from foe, has been taught to seek conclusive proof of harm done before destroying any of the birds on his farm. To Professor Beal must be given also much of the credit for bringing the science of economic ornithology in America to its present high standard. In California he will be remembered as the pioneer and founder of economic ornithology, and as one who developed interest in, and protection for, insectivorous birds.

Mr. J. S. Hunter, who worked with Mr. Beal in the Pajaro Valley when investigations were being conducted in California, pays this tribute to him: "He was a man who did not seem to grow old, took an interest in everything, was thoroughly energetic and intensely interested in his work." With such characteristics it is little wonder that the name of Foster E. L. Beal is revered wherever known and that his publications are used as models by all younger workers.—H. C. BRYANT.

COMMUNICATIONS

Editor of THE CONDOR:

Will you kindly allow me to make an appeal through your columns to the ornithologists of the Pacific coast for photographs for use in the Life Histories of North American Birds?

I am planning to have this work illustrated with a series of the finest photographs I can obtain, showing the home life of every species possible.

I therefore want photographs illustrating breeding colonies, nesting sites, nests and eggs, and young birds. I am short of material on Tufted Puffin, Rhinoceros and Caspian aukslets, Xantus Murrelet and Pigeon Guillemot.

If any of your readers have good photographs illustrating the home life of any of the above, I should be glad to have them send me such as they are willing to contribute from which I can make selections. Each contributor will receive full credit for what photographs as are used.

Very truly yours,

A. C. BENT.

Taunton, Mass., October 10, 1916.

PUBLICATIONS REVIEWED

RECENT ORNITHOLOGY FROM ALASKA AND EASTERN SIBERIA.—As a result of expeditions sent out from the United States into the far northwest, there have recently appeared several papers which add materially to our knowledge of the ornithology of the regions concerned. Three of these papers are to be commented upon here. The first, by Thayer and Bangs⁽¹⁾, deals with the collections of birds obtained by Johan Koren along the Arctic coast of East Siberia, west to the Kolyma River. Koren was sent out at the expense of Mr. John E. Thayer, and during two years, 1911-12, evidently gave a good account of himself.

Thayer and Bangs describe several new birds from the Kolyma country, as follows: *Lagopus lagopus koreni*, a Willow Ptarmigan differing from our North American races in size and shape of bill; *Circus cyaneus cernuus*, a Marsh Hawk smaller and paler than the European Harrier; *Buteo flavus plexus*, a race of the Yellow Wagtail; *Otocoris alpestris euroa*, a race of Horned Lark. The Gray-cheeked Thrush (*Holocichla aliciae aliciae*) was found to be nesting as far west in eastern Siberia as the

(1) *Notes on the Birds and Mammals of the Arctic Coast of East Siberia.* Birds, by JOHN E. THAYER and OUTRAM BANGS. Mammals, by GLOVER M. ALLEN. Proc. New England Zool. Club, v. April 9, 1914, pp. 1-66, 1 map.

Kolyma River. Incidentally an American race of the Black-bellied Plover is separated from the two forms occupying Europe and East Siberia, respectively, on the ground of small size. It is named *Squatarola squatarola cynosurae*, with type from Baillie Island, Arctic America. The validity of this race has lately been queried by Todd (Annals Carnegie Museum, x, 1916, p. 214). Thayer and Bangs find that, "like the knot, sandpiper, turnstone and some other waders", the Dunlin divides into three races. These are: *Pelidna alpina alpina*, of western Europe; *P. a. sakhalina*, of east Siberia; and *P. a. pacifica*, of North America. The latter name, given by Coues years ago, is thus restored to use for our American bird. Koren was able to furnish field notes accompanying his specimens, and these provide basis for valuable facts in regard to migration times and nesting habits.

Another expedition financed by Mr. Thayer visited East Siberia and Arctic Alaska during 1913 and 1914. The two collectors of the party were Joseph Dixon and W. Sprague Brooks. The published report² is under the authorship of the latter, and acknowledgment for help is made to Outram Bangs and H. C. Oberholser. The notable features in this paper are the descriptions of several supposed new forms of American birds. *Larus thayeri* is named from Ellesmere Land. It is evidently a member of the very variable *Larus glaucescens* series. A far-reaching study of the gulls of Arctic America will be required before we can rest assured of the true status of all the variants. A western race of the Harlequin Duck, type from Kamchatka, is named *Histrionicus histrionicus pacificus*. Also the White-winged Scoter of the Pacific is separated from the Atlantic bird under the name *Oidemia deglandi dixoni*, type from Humphrey Point, Arctic Alaska. On geographic grounds this case is not exactly clear, for the species nests in the interior of North America, the Atlantic and Pacific seaboards constituting its wintering grounds.

A new race of Winter Wren is described from the Semidi Islands, Alaska, and is called *Nannus hiemalis semidiensis*. Also the Commander Island Rosy Finch is found separable from the Aleutian race and is called *Leucosticte griseonucha maxima*. Names employed for North American birds, and not used in the 1910 A. O. U. Check-List, are: *Lagopus lagopus albus*, *Squatarola squata-*

rola cynosurae, *Pelidna alpina pacifica*, *Planesticus migratorius caurinus*, and *Loxia curvirostra sitkensis*. Critical comment is often given concerning the status of forms. Then there is considerable amount of biographical material mostly of a very welcome nature. But the temporary loss of one of the field note-books prevented full use of the facts gathered by this expedition.

In the third paper³ F. Seymour Hersey lists with annotations the birds encountered by him during the summer of 1914 in a trip along the coast of Alaska north as far as Point Barrow, with visits to the Siberian coast. This trip was undertaken under the patronage of A. C. Bent and with the chief object in view of securing material pertinent to the latter's work on the Life Histories of North American Birds. It is to be inferred that only a part of the total of information gathered is presented now.

Naturally, with so much territory covered in a single season, no single locality was explored with any degree of thoroughness; also many of the localities were such as had been visited repeatedly before and for which there are in the literature many bird records. We are led in this connection to criticize the paper on the score of the inconsequentiality of many of the remarks concerning the species. Actually new matter is small in proportion to the whole amount of print. In other words, the paper is "padded".

There is, too, an element of vagueness which is decidedly provoking to the student of distribution when searching for definite records of occurrence. The important find of a colony of *Sterna aleutica* was made; but where? Were specimens taken of *Larus vegae*? The references to *Larus occidentalis*, *L. californicus*, and *L. delawarensis* are more or less indicative of their having been found within Alaskan territory, but again there is lacking that clear-cut explicitness that would make these important records of most use to the serious student.—J. GRINNELL.

MINUTES OF COOPER CLUB MEETINGS

NORTHERN DIVISION

AUGUST.—The regular monthly meeting of the Northern Division of the Cooper Ornithological Club was held at the Museum of Vertebrate Zoology, Berkeley, California, August 17, 1916, at 8 p. m. President Storer

(2) *Notes on Birds from East Siberia and Arctic Alaska*. By W. SPRAGUE BROOKS. Bull. Mus. Comp. Zool., LIX, September, 1915, pp. 361-413, 2 figs. in text.

(3) *A List of the Birds Observed in Alaska and North-eastern Siberia during the Summer of 1914*. By F. SEYMOUR HERSEY. Smiths. Misc. Coll., vol. 66, no. 2, 1916, pp. 1-33.

was in the chair with the following members present: Mesdames Devere, Ferguson, Grinnell, Lombardy, Mead, and Schlisinger; Misses Atsatt, Culver, Wear and Wythe; and Messrs. Bryant, Camp, Carriger, Davis, Grinnell, Hansen, Lastreto, Noack, Squires and Wright. Mr. and Mrs. Stafford, and Miss Jones were among the visitors. In the absence of Mrs. Alien, Mr. Charles L. Camp was appointed secretary pro tem.

Minutes of the June meeting were read and approved and those of the Southern Division for June and July read. Mrs. Marion Randall Parsons was elected to membership. Applications for membership were received as follows: Helen Gilkey, 2215 Ellsworth Street, Berkeley, proposed by A. L. Barrows; Elizabeth H. Price, 23 Panoramic Way, Berkeley, by Mrs. J. T. Allen; and Walter A. Stafford, 31 Park Way, Piedmont, by Susan B. Culver; also the persons proposed at the Southern Division June and July meetings.

Business disposed of, Dr. H. C. Bryant, Game Expert of the California Fish and Game Commission, read a paper on "Attempt at Acclimatization of Foreign Game Birds in California". After spending many years of time and thousands of dollars in money the State of California has nothing but a few colonies of Ring-necked Pheasants to show for all the efforts along this line.

Mr. Storer called attention to the proclamation recently received from the constitutional governor of one of the central states of Mexico in which regulations for the control of fishing and hunting are prescribed. Adjourned.—CHARLES L. CAMP, *Secretary pro tem.*

SOUTHERN DIVISION

AUGUST.—The regular monthly meeting of the Southern Division was held at the Museum of History, Science and Art, August 31, 1916. Vice-President Law presided. Members present were: Messrs. W. C. Bradbury, E. J. Brown, Brouse, Colburn, Chambers, Cookman, Daggett, Holland, Lamb, Law, Nokes, Wyman, and Mrs. Law. Miss Marsh was a visitor.

Minutes of the July meeting were read and approved. On motion of Mr. Daggett, seconded by Mr. Chambers, Dr. Mortimer Jesurun was elected to membership. New names presented were: Ethel Lombardi (Mrs. M. E.), Berkeley, by Amelia S. Allen; H. V. LaJeunesse, Alameda, by H. C. Bryant; Mrs. Chas. A. Field, Berkeley, by Mrs. C. S. Newhall; Benj. J. Davis, Berkeley, by Mrs. Mary Van E. Ferguson; Dr. John Van Denburgh, San Francisco, by J. Grinnell;

Grace S. Meade (Mrs. Calvert Meade), Oakland, by Mrs. D. W. de Veer; H. Gifford, M. D., Omaha, Nebraska, by W. M. Pierce; Miss Bertha Elizabeth Crawford, Placerville, by W. Leo Chambers.

There being no other business matters for consideration, the meeting resolved itself into the usual informal discussion, and inspection of study skins of gulls. Adjourned.—L. E. WYMAN, *Secretary.*

INTER-MOUNTAIN CHAPTER

MAY.—Meeting was held in the Administration Building, University of Utah, May 10, 1916. President and Vice-President being absent, A. D. Boyle acted as chairman. Meeting called at 8:30 p. m. Members in attendance were: Prof. J. H. Paul, J. Sugden Jr., J. Sugden Sr., Mr. and Mrs. A. O. Treganza, A. D. Boyle and three visitors. Minutes of April meeting read and approved. The evening was spent in general discussion of local breeding grebes, Prof. Paul exhibiting specimens of Western and Pied-billed grebes. Meeting adjourned at 10:15 p. m.—Mrs. A. O. TREGANZA, *Secretary.*

JUNE.—Meeting held in the Administration Building, University of Utah, June 14, 1916, at 8:30 p. m. Vice-President Mullen was in the chair. Members in attendance were: A. D. Boyle, J. Sugden Sr. and Jr., Mr. and Mrs. J. A. Mullen, Mr. and Mrs. A. O. Treganza, Prof. J. H. Paul, Miss Ella Jeremy and one visitor. Minutes of May meeting read and approved. A. O. Treganza brought before the club an accusation made by a Dr. Plummer to the State Game Commissioner, Mr. Fred Chambers, that some of the Cooper Club members were collecting eggs not strictly for scientific purposes, but were commercializing in them. Motion was passed that Dr. Plummer be asked to come before the Club and produce his evidence. A general discussion of local breeding terns followed. Meeting adjourned at 10:30 p. m.—Mrs. A. O. TREGANZA, *Secretary.*

SEPTEMBER.—Meeting held September 13, 1916, at the residence of A. O. Treganza, 614 East 6th South Streets. Vice-President Mullen conducted the meeting which was called at 8:00 p. m. Members in attendance were: R. H. Palmer, A. D. Boyle, Mr. and Mrs. A. O. Treganza, Mr. and Mrs. J. A. Mullen. Minutes of June meeting read and approved. Mrs. Treganza read from Wells W. Cook's *Bird Migration*, and from Coues' *Birds of the Colorado Valley* on the migration of swallows. Observations were given, followed by a general discussion. Meeting adjourned at 10:00 p. m.—Mrs. A. O. TREGANZA, *Secretary.*

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